

Financial Pathways for Energy Efficiency Projects: Energy and the World Bank

“Ending poverty and ensuring sustainability are the defining challenges of our time. Energy is central to both of them.” – Jim Kim, President, The World Bank

“Providing sustainable energy for all could be the biggest opportunity of the 21st century,” -Ban Ki-moon, UN Secretary-General



**SEFA Initiative:
Universal Access to
Energy by 2030**



World Bank Headquarters,
Washington D.C.

Utah Office of the Private Sector
Liaison Officer to the World Bank
Group: WTC Utah



Financial Pathways for Energy Efficiency Projects:

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- 1.4 billion people worldwide: without access to electricity
- 3 billion people: use solid fuels—wood, charcoal, coal and dung—for cooking and heating.
- 1.6 million people: killed yearly by fumes and smoke resulting in emphysema and other respiratory diseases.
- SEFA objectives:
 - Universal access to electricity by 2030.
 - Double the renewable share of power produced and consumed
 - Double the energy efficiency improvement rate.

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How much would it cost to give everyone access to electricity by 2030?

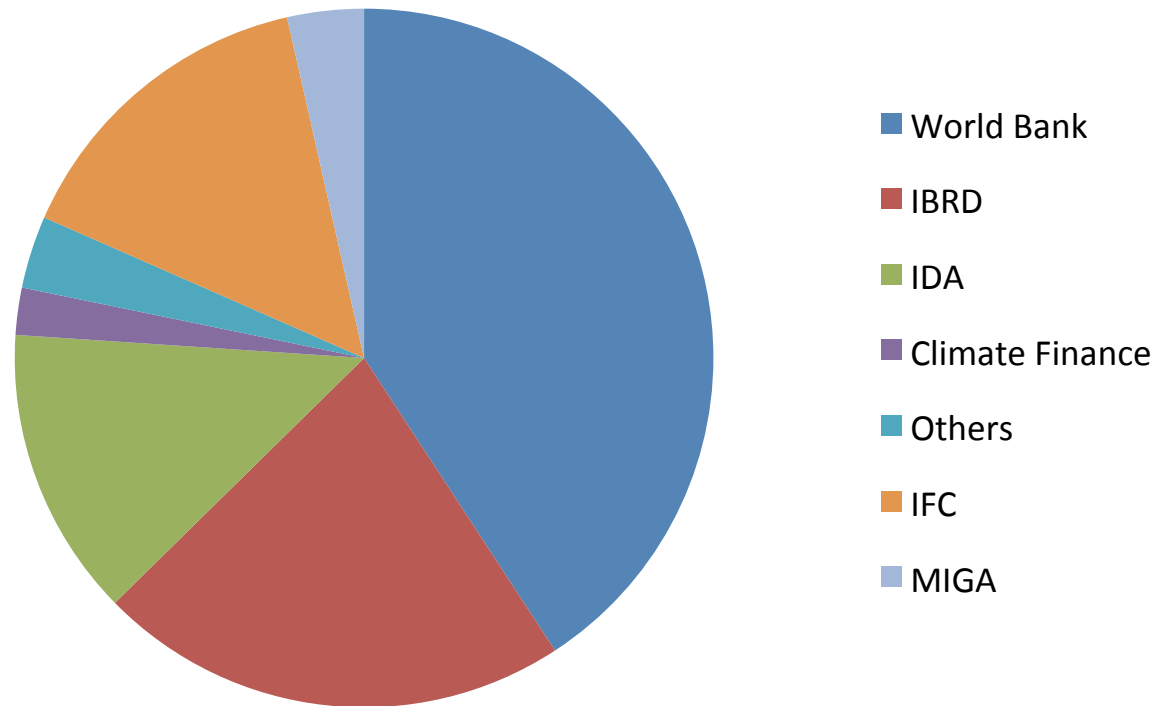
- \$35-40 billion a year new capital investment
- 450 billion worldwide annual investments to sustain energy services at current levels.

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- US\$8.2 billion in fiscal year 2012: World Bank Group financing for energy projects
 - Coal Mining
 - General energy sector
 - Oil and gas
 - Other Renewable Energy
 - Transmission and Distribution of Electricity
 - Energy efficiency in power sector
 - Large Hydropower
 - Thermal Power Generation
 - Other Mining and Extractive Industries
- WB energy projects seek to
 - increase energy access,
 - develop renewable energy and energy efficiency,
 - leverage private sector participation in energy generation, transmission and distribution including through effective public-private partnership arrangements.

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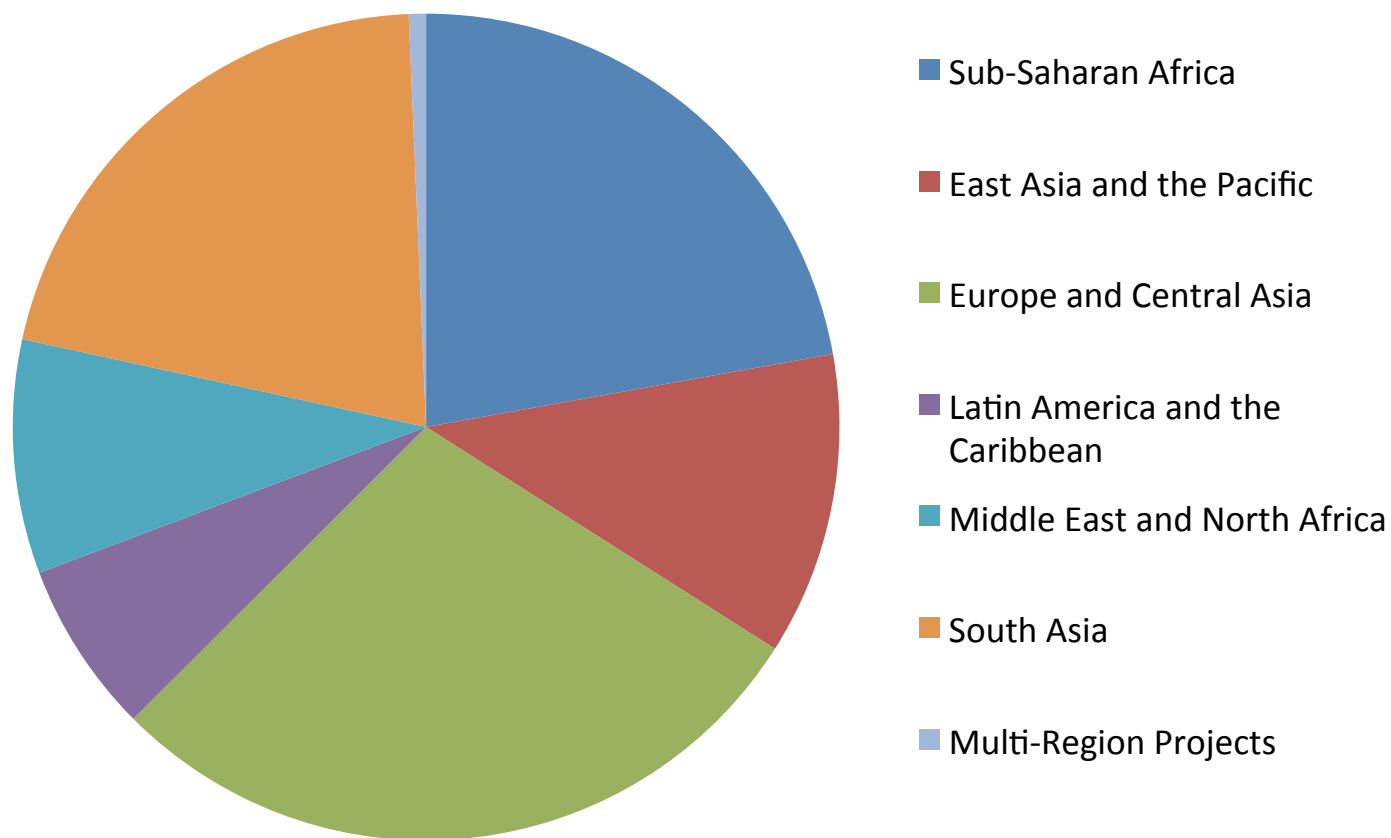
World Bank Group Energy Portfolio by Financing Source, FY2012 (US\$8.1B)



Climate Finance: Carbon Finance, the Clean Technology Fund, the Global Environment Facility and the Program for Scaling Up Renewable Energy in Low Income Countries.

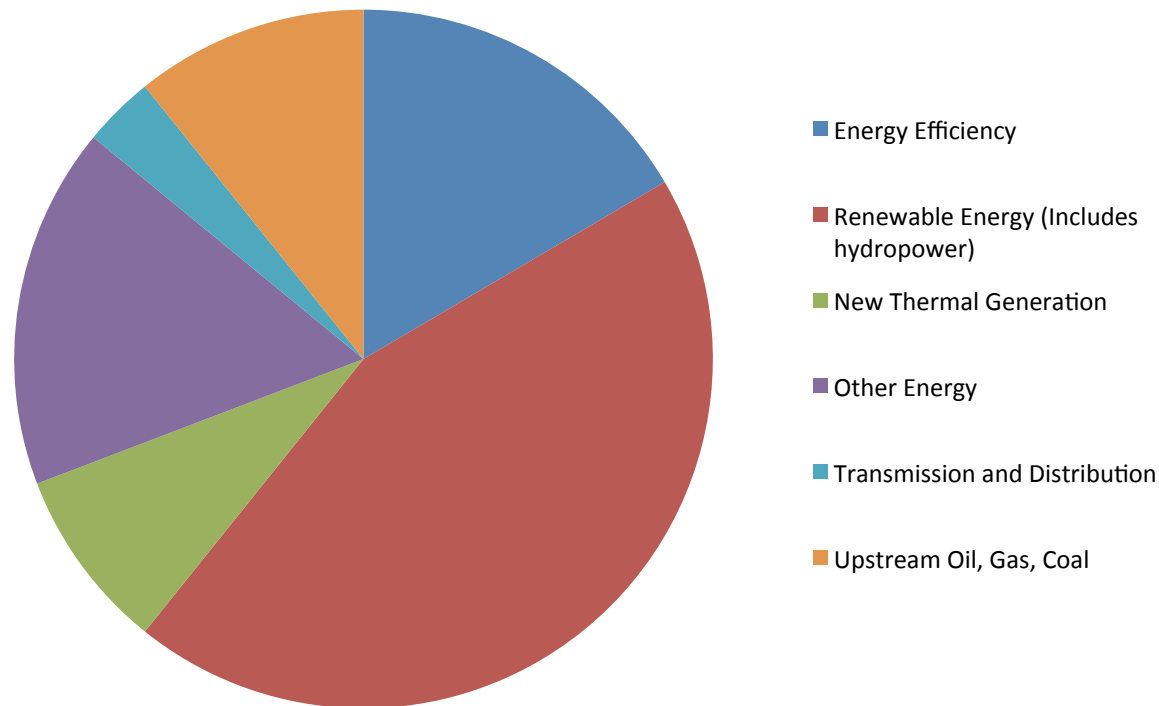
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World Bank Group Energy by Region, FY2012 (US\$8.1B)



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World Bank Group Energy Portfolio by Sector, FY2012 (US\$8.1B)

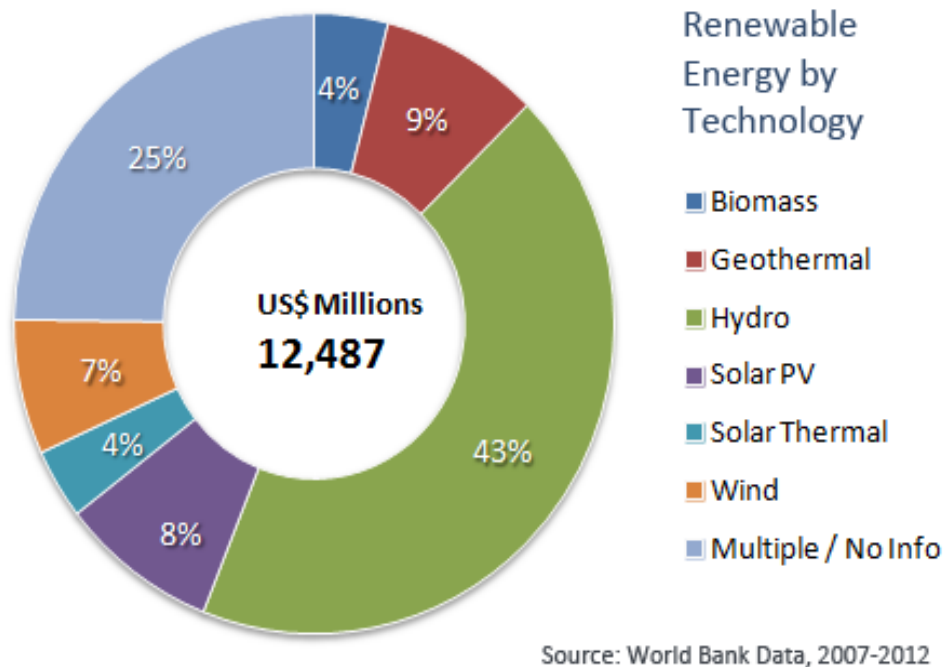


New Thermal Generation includes all new fossil-fuel power plants, including new high efficiency fossil-fuel power plants (super- and ultra- critical power plants)

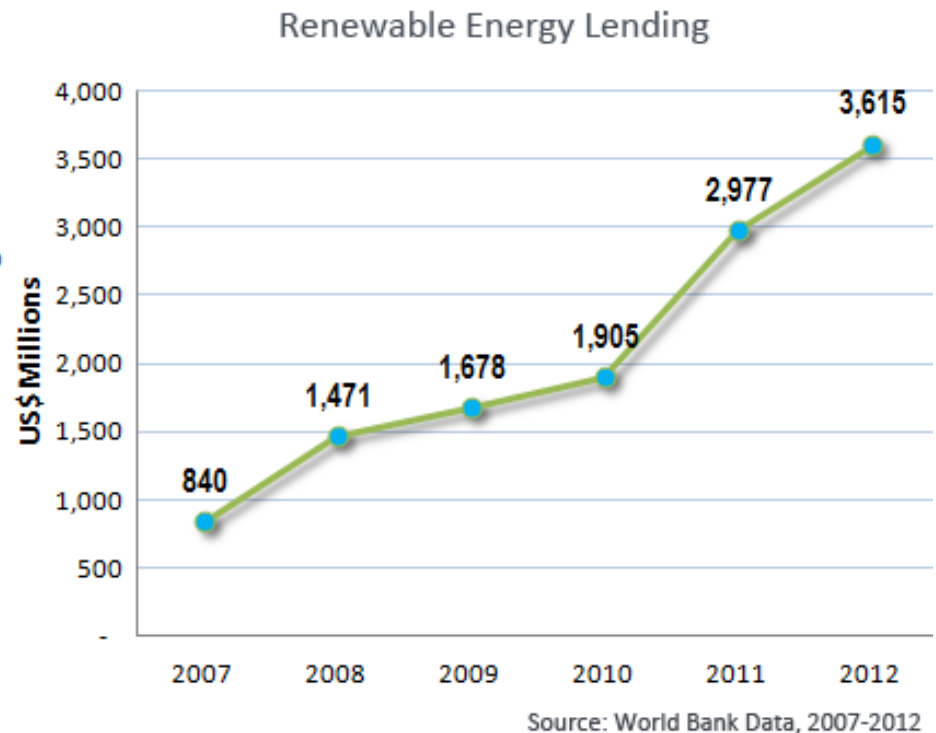
Other Energy includes energy policy support and technical assistance projects

Low Carbon projects include renewable energy projects, energy efficiency projects, and projects that support increased use of cleaner fuels to displace more carbon intensive ones.

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The World Bank Group approved a total of \$3.6 billion in financing for renewable energy projects in fiscal year 2012, a record 44% share of its annual energy lending of \$8.2 billion.



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Project Title	Country	Commitment Amount	Status	Approval Date
General Energy Sector				
Kenya Infrastructure Finance/PPP project	Kenya	40.00	Active	NOV 15, 2012
Tonga Economic Recovery Operation II	Tonga	1.80	Active	NOV 15, 2012
Vietnam Climate Change Development Policy 2	Vietnam	70.00	Active	NOV 08, 2012
Regional Transmission Development APL	Africa	150.00	Pipeline	
EG - Helwan South Power Project	Egypt, Arab Republic of	536.60	Pipeline	
Kenya - Enhancing Water Security & Climate Resilience	Kenya	350.00	Pipeline	
AF: Development Policy Prog. Series	Afghanistan	60.00	Pipeline	
Nigeria Power Sector Guarantees Project	Nigeria	1,000.00	Pipeline	
GW- Electricity and Water Reform Project	Guinea-Bissau	7.00	Pipeline	
ID - Chiller Energy Efficiency Project	Indonesia	3.66	Pipeline	
CN: Beijing Rooftop Solar PV Scale-Up (Sunshine Schools) Project	China	120.00	Pipeline	
PMR TURKEY	Turkey	5.35	Pipeline	
Sierra Leone Energy Access Project - Sierra Leone Infrastructure Development Fund	Sierra Leone	16.00	Pipeline	
Rwanda Electricity Access additional Financing	Rwanda	60.00	Pipeline	
Energy Sector Capacity Building Project (ESCBP)	Tanzania	21.46	Pipeline	
Rwanda Ninth Poverty Reduction Support Financing	Rwanda	125.00	Pipeline	
Serbia Public Enterprise Restructuring DPL 1	Serbia	200.00	Pipeline	

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Urban Scale Building Energy Efficiency and Renewable Energy	China	12.00	Pipeline
EU/IPA Energy Sector Technical Assistance Project	Turkey	14.32	Pipeline
Renewable Energy			
Rural Electrification and Renewable Energy Development II (RERED II) Project	Bangladesh	155.00	Active
Mozambique Climate Change Technical Assistance Project	Mozambique	2.00	Active
Electricity Network Reinforcement and Expansion Project (ENREP)	Ethiopia	200.00	Active
RY-Biogas Digesters: An Integrated Solution for Poverty Alleviation and Climate Change Mitigation in Yemen	Yemen, Republic of	2.61	Active
PNG Energy Sector Development Project	Papua New Guinea	7.30	Pipeline
Luhri Hydro Electric Project	India	650.00	Pipeline
Lukovo Pole Water Regulation and Renewable Energy Project	Macedonia, former Yugoslav Republic of	70.00	Pipeline
Philippines Renewable Energy Development	Philippines	140.00	Pipeline
Hebei Farm Livestock Waste Management Project	China	2.00	Pipeline
Lao PDR: AUSAID Grant Additional Financing of the Rural Electrification Phase I	Lao People's Democratic Republic	9.42	Pipeline
Kom Ombo Solar Power	Egypt, Arab Republic of	170.00	Pipeline

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Geothermal Projects

Kosovo Power Project	Kosovo	50.00	Pipeline	
DJ (GEF) Geothermal Power Generation Program	Djibouti	6.04	Pipeline	
Burkina Faso Electricity access and energy supply	Burkina Faso	50.00	Pipeline	

Oil and Gas

Nigeria Electricity and Gas Improvement Project Additional Financing	Nigeria	200.00	Active	JUN 19, 2012
DJ- Power Access and Diversification Project Additional Financing II	Djibouti	5.20	Active	JUN 12, 2012
Natural Gas Efficiency Project	Pakistan	200.00	Active	APR 26, 2012
Luhri Hydro Electric Project	India	650.00	Pipeline	
Nigeria Power Sector Guarantees Project	Nigeria	1,000.00	Pipeline	
BD: Siddhirganj Power Project-AF	Bangladesh	160.00	Pipeline	
Energy Sector Capacity Building Project (ESCBP)	Tanzania	21.46	Pipeline	
Mining and Gas Technical Assistance Project	Mozambique	50.00	Pipeline	
EU/IPA Energy Sector Technical Assistance Project	Turkey	14.32	Pipeline	

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Other Opportunities:

World Energy Future Summit, Abu Dhabi, 15-17 January 2013

- World leaders in policy from over 70 countries, over 26000 participants, 40 renewable energy project developers
- Around 650 leading technology suppliers from 40 countries
- 20 national pavilions
- Over 60 new products to be launched during the event

Industry Sectors at WFES 2013

- Smart grids
- Nuclear energy
- Carbon and management storage
- Energy efficiency
- Geothermal energy
- Photovoltaic
- Solar thermal
- Advanced transportation
- Waste management
- Wind energy
- Biofuel

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WORLD BANK GROUP PRIVATE SECTOR LIAISON OFFICER MISSION: ENERGY, TRANSPORTATION & EDUCATION

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